

**AMENDMENTS IN THE CLAIMS:**

Please amend claims 3-6, 9, 11, 13, 16-19, 22, 24, 26, 29-31 as follows. Claims 1-32 are currently pending.

Claim 1 (Original): Disease determination method for determining whether a person has a certain disease or not using a biological sample, comprising;

pretreatment process to add an acidic or alkaline solution to the sample and to heat the sample,

excitation light irradiation process to irradiate the sample with excitation light and to continuously or intermittently change the wavelength of the excitation light,

emission light measurement process to measure the wavelength and intensity of

the emission light emitted from the sample in response to the excitation light,

analyzing and sorting process to detect a specific point in the three-dimensional optical spectrum composed of the excitation light wavelength, emission light wavelength and emission light intensity and to sort or hierarchize the sample based on the specific point attribute, and

determination process to determine the presence or absence of the disease or the condition of the disease of the body to which the sample belongs based on the sorting and hierarchization results of the sample.

Claim 2 (Original): The disease determination method according to claim 1, wherein a specific point attribute is determined by at least one of the parameters, including wavelength coordinates of said specific point, number of the specific points, intensity of said emission light

of the specific point, rate of change in the emission light intensity on the periphery of the specific point and the three-dimensional optical spectrum shape in said analyzing and sorting process.

Claim 3 (Currently Amended): The disease determination method according to ~~claims 1 or 2~~ claim 1, wherein urine is used as said sample.

Claim 4 (Currently Amended): The disease determination method according to ~~any one of claims 1 to 3~~ claim 1, wherein fluorescence is measured as said emission light.

Claim 5 (Currently Amended): The disease determination method according to ~~any one of claims 1 to 3~~ claim 1, wherein

the light having a wavelength in a range of 200-900nm as said excitation light in said excitation light irradiation process and

fluorescence having a wavelength in a range of 200-900nm as said emission light in said emission light measurement process.

Claim 6 (Currently Amended): The disease determination method according to ~~any one of claims 1 to 5~~ claim 1, wherein an acidity adjustment process to adjust acidity of said sample is further included after said pretreatment process is performed.

Claim 7 (Original): The disease determination method according to claim 6, wherein acidity of said sample is arbitrarily selected from acidic, alkaline, neutral or almost neutral and an acid, alkali or buffer is added to the sample to achieve the acidity selected during said acidity adjustment process.

Claim 8 (Original): The disease determination method according to claim 7, wherein the acidity of said sample is maintained in alkaline during said acidity adjustment process.

Claim 9 (Currently Amended): The disease determination method according to ~~any one of claims 1 to 8~~ claim 1, wherein said specific point is determined by a relative maximum peak of the intensity of said emission light of said three-dimensional optical spectrum in said analyzing and sorting process.

Claim 10 (Original): The disease determination method according to claim 9, wherein specific point detection maps consisting of a numerical matrix, contour map or vector diagram on said three-dimensional coordinate system are prepared and said specific point is detected based on the specific point detection map in said analyzing and sorting process.

Claim 11 (Currently Amended): The disease determination method according to ~~any one of claims 1 to 10~~ claim 1, wherein the specific point attribute of said sample subject for the determination and the known specific point attributes detected in advance using the standard samples from the bodies having a known specific type of disease are compared and the sample is sorted according to the comparison results in said analyzing and sorting process.

Claim 12 (Original): The disease determination method according to claim 11, wherein a standard data generation process is included to generate said known specific point attributes based on the comparison results of the specific point attribute detected using the standard samples from the healthy bodies with the specific point attribute detected using the standard samples from the bodies having a known specific type of disease.

Claim 13 (Currently Amended): The disease determination method according to ~~any one of claims 1 to 12~~ claim 1, wherein said disease is a malignant tumor.

Claim 14 (Original): Data generation method for disease determination for generating data for disease determination using a biological sample obtained from the subject, comprising;

pretreatment process to add an acidic or alkaline solution to the sample and to heat the sample,

excitation light irradiation process to irradiate the sample with the excitation light and to continuously or intermittently change the wavelength of the excitation light,

emission light measurement process to measure the wavelength and intensity of the emission light emitted from the sample in response to the excitation light, and

analyzing and sorting process to detect a specific point in the three-dimensional optical spectrum composed of the excitation light wavelength, emission light wavelength and emission light intensity and to sort or hierarchize the sample based on the specific point attribute.

Claim 15 (Original): The data generation method for disease determination according to claim 14, wherein a specific point attribute is determined by at least one of the parameters, including wavelength coordinates of said specific point, number of the specific points, intensity

of said emission light of the specific point, rate of change in the emission light intensity on the periphery of the specific point and said three-dimensional optical spectrum shape in said analyzing and sorting process.

Claim 16 (Currently Amended): The data generation method for disease determination according to claim 14 [[or 15]], wherein urine is used as said sample.

Claim 17 (Currently Amended): The data generation method for disease determination according to ~~any one of claims 14 to 17~~ claim 14, wherein fluorescence is measured as said emission light.

Claim 18 (Currently Amended): The data generation method for disease determination according to ~~any one of claims 14 to 17~~ claim 14, wherein

the light having a wavelength in a range of 200-900nm as said excitation light in said excitation light irradiation process and

fluorescence having a wavelength in a range of 200-900nm as said emission light in said emission light measurement process.

Claim 19 (Currently Amended): The data generation method for disease determination according to ~~any one of claims 14 to 18~~ claim 14, wherein the acidity adjustment process to adjust acidity of said sample is further included after said pretreatment process is performed.

Claim 20 (Original): The data generation method for disease determination according to claim 19, wherein acidity of said sample is arbitrarily selected from acidic, alkaline, neutral or almost neutral and an acid, alkali or buffer is added to the sample to achieve the acidity selected during said acidity adjustment process.

Claim 21 (Original): The data generation method for disease determination according to claim 20, wherein the acidity of said sample is maintained in alkaline during said acidity adjustment process.

Claim 22 (Currently Amended): The data generation method for disease determination according to ~~any one of claims 14 to 21~~ claim 14, wherein said specific point is at least one of a relative maximum peak, a relative minimum peak and a point having  $1/n$  of the intensity of the relative maximum peak ( $n > 1$ ) of said emission light in said three-dimensional optical spectrum in said analyzing and sorting process.

Claim 23 (Original): The data generation method for disease determination according to claim 22, wherein specific point detection maps consisting of a numerical matrix, contour map or vector diagram on said three-dimensional coordinate system are prepared and said specific point is detected based on the specific point detection map in said analyzing and sorting process.

Claim 24 (Currently Amended): The data generation method for disease determination according to ~~any one of claims 14 to 23~~ claim 14, wherein the specific point attribute of said sample subject for the examination and the known specific point attributes detected in advance

using the standard samples from the bodies having a known specific type of disease are compared and the sample is sorted according to the comparison results in said analyzing and sorting process.

Claim 25 (Original): The data generation method for disease determination according to claim 24, wherein the standard data generation process is included to generate said known specific point attributes based on the comparison results of the specific point attribute detected using the standard samples from the healthy bodies with the specific point attribute detected using the standard samples from the bodies having a known specific type of disease.

Claim 26 (Currently Amended): The data generation method for disease determination according to ~~any one of claims 14 to 25~~ claim 14, wherein said disease is a malignant tumor.

Claim 27 (Original): The data generation system for disease determination for generating disease determination data by analyzing the sample collected from the body of the subject, comprising;

excitation light irradiation means to irradiate the sample with the excitation light and to continuously or intermittently change the wavelength of the excitation light,

emission light measurement means to measure the wavelength and intensity of the emission light emitted from the sample in response to the excitation light, and

analyzing and sorting means to detect a specific point in the three-dimensional optical spectrum composed of the excitation light wavelength, emission light wavelength and emission light intensity and to sort or hierarchize the sample based on the specific point attribute to generate sorting data for disease determination.

Claim 28 (Original): The data generation system for disease determination according to claim 27, wherein a specific point attribute is determined by at least one of the parameters, including wavelength coordinates of said specific point, number of the specific points, intensity of said emission light of the specific point, rate of change in the emission light intensity on the periphery of the specific point and said three-dimensional optical spectrum shape in said analyzing and sorting means.

Claim 29 (Currently Amended): The data generation system for disease determination according to ~~any one of claims 27 to 28~~ claim 27, wherein

the light having a wavelength in a range of 200-900nm as said excitation light in said excitation light irradiation means and

fluorescence having a wavelength in a range of 200-900nm as said emission light in said emission light measurement means.

Claim 30 (Currently Amended): The data generation system for disease determination according to ~~any one of claims 27 to 29~~ claim 27, wherein said specific point is at least one of a relative maximum peak, a relative minimum peak and a point having  $1/n$  of the intensity of the relative maximum peak ( $n > 1$ ) of said emission light in said three-dimensional optical spectrum in said analyzing and sorting means.

Claim 31 (Currently Amended): The data generation system for disease determination according to ~~any one of claims 27 to 30~~ claim 27, comprising a storage means that the known specific point attributes are stored in advance, wherein said analyzing and sorting means



compares the known specific point attributes stored in said storage means and the specific point attribute of the samples obtained from said subject and sorts said sample based on the comparison results.

Claim 32 (Original): The data generation system for disease determination according to claim 31, wherein standard data generation means is included to generate said known specific point attributes based on the comparison results of the specific point attribute detected using the standard samples from the healthy bodies with the specific point attribute detected using the standard samples collected from the bodies having a known specific type of disease.